

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. *(canceled)*
2. **(currently amended)** A method of forming a semiconductor device having a bump electrode, the method comprising the steps of:
providing an aluminum contact pad on a substrate, at least a portion of the aluminum contact pad being exposed through a dielectric layer on the substrate;
forming an aluminum layer on the dielectric layer and the portion of the aluminum contact pad exposed through the dielectric layer;
forming a nickel-vanadium layer on the aluminum layer;
forming a titanium layer on the nickel-vanadium layer;
selectively forming a gold bump on the titanium layer at a location corresponding to the aluminum contact pad; and
etching the aluminum layer, the nickel-vanadium layer and the titanium layer using the gold bump as a mask wherein the gold bump is substantially unaffected during the etching step;
said method further ~~The method as claimed in claim 1, further~~ comprising, before the gold bump is formed on the titanium layer, the step of removing TiO or TiO₂ that may have been formed on the titanium layer.
3. **(previously presented)** The method as claimed in claim 2, wherein the removing step is conducted by treating the titanium layer with a cleaning medium.

4. (original) The method as claimed in claim 3, wherein the cleaning medium is HCl.

5-6. (canceled)

7. (currently amended) A method of forming a semiconductor device having a bump electrode, the method comprising the steps of:

providing an aluminum contact pad on a substrate, at least a portion of the aluminum contact pad being exposed through a dielectric layer on the substrate;

forming an aluminum layer on the dielectric layer and the portion of the aluminum contact pad exposed through the dielectric layer;

forming a nickel-vanadium layer on the aluminum layer;

forming a titanium layer on the nickel-vanadium layer;

selectively forming a gold bump on the titanium layer at a location corresponding to the aluminum contact pad; and

etching the aluminum layer, the nickel-vanadium layer and the titanium layer using the gold bump as a mask wherein the gold bump is substantially unaffected during the etching step;

wherein ~~The method as claimed in claim 1, wherein~~ said etching comprises utilizing an acidic solution as an etchant to etch the aluminum layer, the nickel-vanadium layer and the titanium layer without significantly affecting the gold bump being used as an etching mask.

8. (currently amended) A method of forming a semiconductor device having a bump electrode, the method comprising the steps of:

providing an aluminum contact pad on a substrate, at least a portion of the aluminum contact pad being exposed through a dielectric layer on the substrate;

forming an aluminum layer on the dielectric layer and the portion of the aluminum contact

pad exposed through the dielectric layer;

forming a nickel-vanadium layer on the aluminum layer;

forming a titanium layer on the nickel-vanadium layer;

selectively forming a gold bump on the titanium layer at a location corresponding to the aluminum contact pad; and

etching the aluminum layer, the nickel-vanadium layer and the titanium layer using the gold bump as a mask wherein the gold bump is substantially unaffected during the etching step;

wherein ~~The method as claimed in claim 1, wherein~~ said etching comprises utilizing HCl as an etchant to etch the aluminum layer, the nickel-vanadium layer and the titanium layer.

9-11. (canceled)